

Amendments to the Claims:

Claim 8 has been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-7 (Cancelled)

8. (Currently Amended) A method of motion searching a macroblock, comprising:
determining a predicted motion vector;

calculating a predicted search range based on motion in any adjacent macroblocks arranged adjacent to said macroblock;

selecting a starting location based on said predicted motion vector and said predicted search range, said predicted search range defining a maximum distance that a current macroblock could have moved away from said predicted motion vector;

selecting a search pattern based on said predicted motion vector; and

diamond motion searching said macroblock from said selected starting location based on said selected search pattern to determine a best motion vector.

9. (Original) The method according to claim 8, wherein said determining a predicted motion vector comprises finding a median for each component of motion vectors for three surrounding, already motion-searched macroblocks.

10. (Original) The method according to claim 8, wherein said calculating a predicted search range comprises determining a maximum difference for each component of motion vectors for three surrounding, already motion-searched macroblocks.

11. (Original) The method according to claim 10, further comprising doubling said maximum difference.

12. (Original) The method according to claim 8, wherein said selecting a starting location comprises:

if said predicted search range is less than an integer threshold m , then:

testing locations pointed to by three surrounding, already motion-searched macroblocks;

and

selecting one of said locations having a lowest distortion as said starting location;

if said predicted search range is greater than or equal to said integer threshold m , then:

searching an integer number j of locations located approximately r pixels from an initial

search center in a radial pattern and approximately equidistant from one another

along a circumference of a circle of radius r if a predicted search range is greater

than or equal to an integer p ; and

selecting a best location from among said integer number j locations.

13. (Original) The method according to claim 12, wherein said integer threshold m equals 8.

14. (Previously presented) The method according to claim 12, wherein said integer number j comprises a number selected from a group consisting of 5, 6, 7, 8, 9 and 10.

15. (Original) The method according to claim 12, wherein said integer number j equals 8.

16. (Original) The method according to claim 12, wherein said radius r comprises approximately 8 pixels.

17. (Previously presented) The method according to claim 12, wherein said integer p equals 8.

18. (Original) The method according to claim 8, wherein said selecting a search pattern comprises:
selecting a small diamond search pattern if said predicted motion vector is less than or equal to a distance of l pixels; and
selecting a large diamond search pattern if said predicted motion vector is greater than said distance of l pixels.

19. (Original) The method according to claim 18, wherein said distance of l pixels comprises a distance of 2 pixels.

Claim 20-24 (Cancelled)